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oxidation or flame hydrolysis to SiO_2 and a compound in vapor form capable of being converted through oxidation or flame hydrolysis to at least one member of the group consisting of P_2O_5 and a metal oxide which has a metallic component selected from Group IA, IB, IIA, IIB, IIIA, IIIB, IVA, IVB, VA, and the rare earth series of the Periodic Table;

(b) passing said gas stream into the flame of a combustion burner to form amorphous particles of fused SiO_2 doped with an oxide dopant;

(c) depositing said amorphous particles onto a support; and

(d) either essentially simultaneously with said deposition or subsequently thereto consolidating said deposit of amorphous particles into a non-porous body; the improvement comprising utilizing as said silicon-containing compound in vapor form a halide-free [polymethylsiloxane] polymethylcyclsiloxane, whereby no halide-containing vapors from said silicon-containing compound are emitted during the making of said non-porous body of high fused silica glass.

13. (Amended) In a method for making optical waveguide fibers of high purity fused silica through the outside vapor deposition process comprising the steps of:

(a) producing a gas stream containing a silicon-containing compound in vapor form capable of being converted through thermal decomposition with oxidation or flame hydrolysis to SiO_2 ;

(b) passing said gas stream into the flame of a combustion burner to form amorphous particles of fused SiO_2 ;

(c) depositing said amorphous particles onto a mandrel;

(d) consolidating said deposit of amorphous particles into a non-porous, transparent glass body; and

(e) [and] drawing optical waveguide fiber from said body;

the improvement comprising utilizing as said silicon-containing compound in vapor form a halide-free [polymethylsiloxane] polymethylcyclsiloxane, whereby no halide-containing vapors are emitted during the making of said optical waveguide fibers.

17 (Amended) In a method for making optical waveguide fibers of high purity fused silica glass doped with an oxide dopant comprising the steps of:

(a) producing a gas stream containing a silicon-containing compound in vapor form capable of being converted through thermal decomposition with oxidation or flame hydrolysis to SiO_2 and a compound in vapor form capable of being

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converted through oxidation or flame hydrolysis to at least one member of the group consisting of P_2O_5 and a metal oxide which has a metallic component selected from Group IA, IB, IIA, IIB, IIIA, IIIB, IVA, IVB, VA, and the rare earth series of the Periodic Table;

(b) passing said gas stream into the flame of a combustion burner to form amorphous particles of fused SiO_2 doped with an oxide dopant;

(c) depositing said amorphous particles onto a mandrel;

(d) consolidating said deposit of amorphous particles into a non-porous transparent glass body; and

(e) drawing waveguide fiber from said body; the improvement comprising utilizing as said silicon-containing compound in vapor form a halide-free [polymethylsiloxane] polymethylcyclsiloxane, whereby no halide-containing vapors from said silicon-containing compound are emitted during the making of said optical waveguide fibers.

REMARKS

In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

Of the patent claims, claims 1, 4-7, 10-13, 16-17, and 20-26 are pending, while claims 2-3, 8-9, 14-15, and 18-19 are canceled. Added claims 27 and 30 are pending. The status of the pending claims is that claims 13 and 16 are allowed, claims 1, 4-7, 10-11, 17, 20-21, and 23-26 are rejected, and claims 12 and 22 are objected to.

By the above-amendments, claims 7, 13, and 17 are amended to require a "polymethylcyclsiloxane". Support for these amendments is found in patent claims 9, 15, and 19, respectively.

The June 30, 1999, personal interview between Examiner Hoffman and applicants' attorneys Edward Murphy and Michael Goldman is gratefully acknowledged. The substance of that interview is set forth below.

The rejections of claims 28-29 and 31-32 under 35 U.S.C. § 112 (1st and 2nd para.) is respectfully traversed in view of the cancellation of these claims.

The rejection of claims 7-8, 11, 17-18, and 21 under 35 U.S.C. § 103 for obviousness over U.S. Patent No. 3,823,995 to Carpenter ("Carpenter") in view of U.K. Patent Application No. 2,049,641 to Kratel ("Kratel") is respectfully traversed in view of the above amendments. In particular, the limitations of claims 9 and 19, which were not rejected over the combination of Carpenter and Kratel, have been incorporated into claims 7 and 17,